



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,056	11/25/2003	Ki Chul Cha	465-1094P	4192
2292	7590	08/17/2007	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			HECKERT, JASON MARK	
PO BOX 747			ART UNIT	PAPER NUMBER
FALLS CHURCH, VA 22040-0747			1746	
NOTIFICATION DATE		DELIVERY MODE		
08/17/2007		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

[mailroom@bskb.com](mailto:mailroom@bskb.com)

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/720,056	CHA, KI CHUL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason Heckert	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 May 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-3,5-7 and 10 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3, 5-7, 10 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Arguments***

1. Due to the applicant's amendments filed 5/25/07, the previous rejection under 35 USC § 102(b) of claims 1-3, 5-7, 10 has been rendered moot. The rejection under 35 USC § 112 of claims 4, 8-9 has also been rendered moot due to the cancellation of said claims.
2. Applicant's arguments filed 5/25/07 in regards to claims 1-3, 5-7, 10 have been fully considered but they are not persuasive. Large was presented in order to show that combination washer/dryers are known in the art. Didier was presented in order to show that it is desirable to know load size in a washing and drying machine in order to properly determine drying time (col. 2 lines 5-12). Kenjo was presented in order to show that it is known to have a washing machine with the components disclosed in the applicant's invention, such as motor sensing parts that determine rotational speed and from that measurement, calculate load. According to the applicant's own specification, controlling part 130 ultimately sets a drying time period according to the amount of laundry (paragraph 31). According to Didier, this is already known.
3. In addition, examiner is now presenting another piece of prior art, to Yang et al., in order to address the claims now clarified after applicant addressed the USC § 112 issues. Yang teaches that a laundry machine can calculate load by comparing detected speeds to stored speeds in a look-up table in memory that correspond to laundry loads. These teachings are fully applicable in a combination washer/dryer, such as that of Large, as disclosed by Didier.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 5-6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 recites the limitation "the preset rotation speeds". There is insufficient antecedent basis for this limitation in the claim. Please revise properly.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 1-3, 5-6, 7, 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Kenjo et al. (Kenjo) in view of Yang et al. (Yang) in view of Didier et al. (Didier) in view of Large. Kenjo et al. disclose a washing machine with a motor 5, a detector 34 for detecting rotational speed of said motor, and a controller 29. The data collected by detector 34 is used in a load calculation to determine load of laundry, which is then used by the controller to vary different wash and dry parameters. Applicant acknowledges this known relationship between rotational speed and load in claim 10 and specification paragraph 31. Kenjo does not disclose a look-up table in memory that compares detected speeds to associated weight loads. Yang does disclose calculating weight in

this manner (0062- 0063) because the speed of the motor differs according to weight. Yang discloses both stored speeds and a look-up table in memory. It would be obvious to one of ordinary skill in the art to use other known methods of weight detection using the same measured variables, in this case speed, in order to calculate laundry load and proceed with process control. Neither Kenjo nor Yang discloses a washer/dryer combo or setting drying a time. However, Didier discloses that knowing load amount, of which the device Kenjo is capable of determining, is pertinent in setting proper drying cycle times (col. 2 lines 9 – 11) in a washing machine and/or drying machine. It is well known that washer/dryer combos include some sort of blower and heater and that operating these devices results in the drying of wet laundry. Large discloses a washer/dryer with heater/blowing unit (col. 3 lines 32-36). Thus it would have been obvious at the time of the invention to modify Kenjo and use a look-up table in memory to relate speed to laundry load, as disclosed by Yang, and further include the elements of a well-known washer/dryer combo, as disclosed by Large, in order to dry the laundry. It would further be obvious to control the drying cycle time based on load, as disclosed by Didier.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

Art Unit: 1746

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Heckert whose telephone number is (571) 272-2702. The examiner can normally be reached on Mon. to Friday, 8:00 - 5:00.

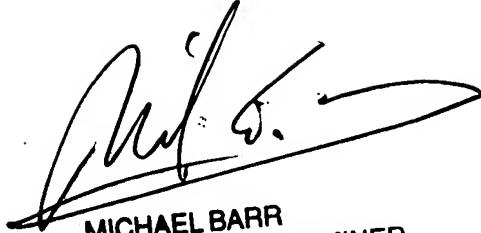
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/720,056  
Art Unit: 1746

Page 6

JMH



MICHAEL BARR  
SUPERVISORY PATENT EXAMINER